

**REMARKS**

Claims 1-8 are all the claims pending in the application.

Claims 1-8 are rejected.

Claims 1, 5, 7 and 8 are objected to because of informalities.

Claims 1-3 and 5-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kodama et al. (U.S. Patent No. 6,961,683) in view of Neul et al. ("a Modeling Approach to Include Mechanical Microsystem Components into the System Simulation", Proceedings of Design, Automation and Test in Europe, pages 510-517, 23-26 February, 1998) and Peterson et al. ("Application of Dynamic System Identification to Timber Beams", Journal of Structural Engineering, April 2001, pages 418-425).

The Applicants traverse the rejections and request reconsideration.

***Specification***

The Examiner objects to the statement on p. 1, ll. 24-25 of the Specification that there are various wire harnesses as described above. The Examiner contends that none of the harnesses are described. The Applicants respectfully refer the Examiner to the passage preceding these lines, two documents are listed. A skilled artisan would know that the wire harnesses are described in the two listed documents.

Regarding the objections to the “Brief Summary” the Applicants respectfully submit that the cited passages in the MPEP are mere suggestions and are not absolute requirements under US patent laws or rules of patent practice. As such, there is no specific requirement that a brief summary should even be included in the Specification.

***Claim Objections and Rejections based on section 112, second paragraph***

The Applicants respectfully amend the claims to overcome the objections to the claims and their rejection under section 112, second paragraph.

***Claim Rejections Under 35 U.S.C. § 103***

Rejections of claims 1-3, 5-8 based on Kodama, Neul and Peterson

The present invention relates to techniques for assisting in wiring design. As recited in claim 1, the present invention requires considering the wiring structure as an elastic body having a circular cross section. The elastic body is required to have a plurality of beam elements that are coupled with each other. For example, in the embodiment shown in Fig. 3, a plurality of pieces of line streak members 11 are together constituted to be an elastic body.. This is divided into a plurality of beam elements C1, C2, etc that are coupled to each other. The elastic body has a circular cross section A.

The Examiner refers to Figs. 1, 5 and 8 of Kodama and the accompanying descriptions in alleged support of her position that the above described features are suggested. However, Fig. 1 merely shows an overall shape of a wire harness with several connectors and three branch points. Likewise, Fig. 5 appears to approximate a deformation of a thin rod as an elastic body without

considering its diameter. (see 7:26-30). Moreover, Fig. 8 shows another example of a wire harness structure with five wire harnesses, one branch point and three connectors. However, Kodama does not suggest considering the wiring structure as an elastic body having a circular cross section. Further, Kodama does not suggest the elastic body as having a plurality of beam elements that are coupled to each other.

Still further, the present invention requires applying information related to shape characteristics. While Kodama inputs several pieces of information like thickness, length, etc, there is no suggestion that any shape characteristic is input.

Neul is cited for its alleged teachings related to the application of finite element analysis using spatial beams in analyzing mechanical components. On the other hand, Peterson is cited for its teaching related to the use of experimental modal analysis and damage localization algorithm for identifying locations of simulated damages. However, neither Neul nor Peterson overcome the deficiencies noted above in the teachings of Kodama.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. MPEP 2143 citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The Applicants respectfully submit that the Examiner has not satisfied the burden of establishing *prima facie* obviousness at least because she has not satisfied the “all limitations” prong of the three prong test for obviousness. Specifically, the Examiner has not shown that the combined teachings of Kodama, Neul and Peterson suggest the invention as a whole including at least the limitations that are discussed above

Since the “all limitations” test is not satisfied, the “motivation” and the “reasonable expectation of success” prongs of the test for obviousness must also fail.

Claims 5, 7 and 8 include limitations analogous to the ones discussed above in relation to claim 1. Therefore, these claims are patentable for analogous reasons.

Claims 2,3 and 6 are dependent on the above claims, and therefore, are allowable for the same reasons.

Rejection of claim 4 based on Kodama, Neul and Peterson

Claim 4 requires the wiring structure to be constituted by a plurality of line streak members and predicting a shape. Further, it requires analyzing a characteristic value with respect to vibration for the predicted shape.

The combined teachings of Kodama, Neul and Peterson do not suggest these features.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. Application No.: 10/669,644

Attorney Docket No.: Q77694

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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